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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/765,322

01/26/2004

Shinobu Komiyama

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EXAMINER

GREEN, ANTHONY J

ART UNIT

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1793

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/765,322	<b>Applicant(s)</b> KOMIYAMA ET AL.	
	<b>Examiner</b> Anthony J. Green	<b>Art Unit</b> 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,6-12,18,20,22-28 and 34-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,6-10,12,18,20,23-26,28 and 34-41 is/are rejected.
- 7) ☒ Claim(s) 11,22 and 27 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>05/05/08</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

1. This office action is in response to the amendment submitted on 05 May 2008. Claim 3, 5, 13-17, 19, 21, and 29-33 have been canceled and new claims 34-41 have been added. Accordingly claims 1-2, 4, 6-12, 18, 20, 22-28 and 34-4 are currently pending in the application. Based on applicant's amendments and/or arguments the previous art rejections have been withdrawn and new rejections are lodged below.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 4, 7, 9, 10, 12, 18, 20, 23, 25, 26, 28, 34-36, 38-40 are rejected under 35 U.S.C. 102(b) as being anticipated by Batdorf (US Patent No. 4,347,285 A).

The reference teaches, in Example 1, a composition comprising 81.22% of an aqueous liquid sodium silicate having a silica to sodium oxide ratio of 3.22:1 by weight with a solids content of 38.3%, 18.32% of mica, 0.31% of zinc stearate, with other components which is mixed with a composition that comprise .52% of hydroxyethyl cellulose with other components.

The instant claims appear to be met by the instant claims. The amount of the viscosity modifier is believed to be met by the reference as according to the instant

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claims it is based on the amount of silicate and lubricating component and therefore upon calculation, this amount falls within the claimed range.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-2, 4, 8-10, 18, 20, 24-26, 35-36 and 39-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grantham et al (US Patent No. 6,821,631 B2).

The reference teaches, in claim 17, a sodium silicate treatment solution comprises 67 to 84.2 wt. % water, 15 to 20 wt. % sodium silicate, 0 to 10 wt. % of a sealant composition, 0.1 to 2 wt. % of a wetting agent, 0.1 to 2 wt. % of a rheology modifier, 0.1 to 2 wt. % of an alkali borate, and 0 to 0.5 wt. % bactericide, insecticide, or fungicide. According to column 3, lines 35+, any type of alkali silicate may be used so long as it is able to polymerize inside the treated substrate. Column 5, lines 40+, teaches that various waxes such as paraffin wax may be used as the sealant. Column 7, teaches that the rheology modifier may be selected from various cellulosic agents such as hydroxymethylcellulose, and carboxymethyl cellulose as well as other materials such as lignin, acrylic thickeners etc.

The instant claims are obvious over the reference. While the reference does not teach the formula of the alkali silicate it does teach that any type may be utilized and accordingly the types recited in the instant claims are obvious choices absent evidence showing otherwise as applicant has not shown that the use of a particular alkali silicate produces unexpected results. As for the types of components that may be used as the lubricating component, the reference teaches the use of various waxes and as for the types of viscosity modifiers the reference teaches various types of rheology modifiers that encompass those instantly claimed. With respect to the amounts of the components, the reference teaches amounts that encompass or overlap that which is instantly claimed. One of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because the compositional proportions taught by the reference overlap the instantly claimed proportions and therefore are considered to establish a prima facie case of obviousness. It would have been obvious to one of ordinary skill in the art to select any portion of the disclosed ranges including the instantly claimed ranges from the ranges disclosed in the prior art reference, particularly in view of the fact that;

“The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages”, In re Peterson 65 USPQ2d 1379 (CAFC 2003).

Also, In re Geisler 43 USPQ2d 1365 (Fed. Cir. 1997); In re Woodruff, 16 USPQ2d 1934 (CCPA 1976); In re Malagari, 182 USPQ 549, 553 (CCPA 1974) and MPEP 2144.05.

Accordingly the instant claims are obvious over the reference.

6. Claims 35, 37, 39 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leah et al (US Patent No. 4,227,932 A).

The reference teaches, in claim 11, a single component potassium silicate cement composition capable of being dry gunited by mixing with water in the nozzle of a concrete gunning machine to produce a quick setting acid-resistant cement comprising the following pulverulent ingredients expressed as percent by weight:

(a) Potassium silicate having an  $\text{SiO}_2/\text{K}_2\text{O}$  weight ratio of 2 and a water content of about 16% by weight--16.0%

(b) Condensed aluminum phosphate hardener--4.0%

(c) Silica sands--76.4%

(d) Clay--3.2%

(e) Surfactant--0.1%

(f) Mineral Oil--0.3%.

The instant claims are obvious over the reference. The clay of the reference is believed to meet the viscosity modifier as the reference teaches, in column 5, lines 22-23, that the preferred type of clay is kaolin. With respect to the amounts of the components, the reference teaches amounts that encompass or overlap that which is instantly claimed. One of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because the compositional proportions taught by the reference overlap the instantly claimed proportions and therefore are considered to establish a prima facie case of obviousness. It would have

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been obvious to one of ordinary skill in the art to select any portion of the disclosed ranges including the instantly claimed ranges from the ranges disclosed in the prior art reference, particularly in view of the fact that;

“The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages”, In re Peterson 65 USPQ2d 1379 (CAFC 2003).

Also, In re Geisler 43 USPQ2d 1365 (Fed. Cir. 1997); In re Woodruff, 16 USPQ2d 1934 (CCPA 1976); In re Malagari, 182 USPQ 549, 553 (CCPA 1974) and MPEP 2144.05.

Accordingly the instant claims are obvious over the reference.

7. Claims 1, 4, 6, 10, 35-36, and 39-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lagerwaard et al (US Patent No. 5,069,809 A).

The reference teaches, in example 1, a composition comprising sodium silicate, sodium stearate, sodium carboxymethylcellulose, water and other components.

The instant claims are obvious over the reference. While the reference does not recite that it is a treating agent for forming a protective coating it should be noted that the future use of a composition adds little or no patentable weight to a claim when the composition is the claim. Also It is well settled that when a claimed composition appears to be substantially the same as a composition disclosed in the prior art, the burden is properly upon the applicant to prove by way of tangible evidence that the prior art composition does not necessarily possess characteristics attributed to the CLAIMED composition. In re Spada, 911 F.2d 705, 15 USPQ2d 1655 (Fed. Circ. 1990); In re

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Fitzgerald, 619 F.2d 67, 205 USPQ 594 (CCPA 1980); In re Swinehart, 439 F.2d 2109, 169 USPQ 226 (CCPA 1971). While the reference does not teach the formula of the alkali silicate it does teach the use of sodium silicate and accordingly the types recited in the instant claims are obvious choices absent evidence showing otherwise as applicant has not shown that the use of a particular alkali silicate produces unexpected results. As for the types of components that may be used as the lubricating component, the reference teaches the use of sodium stearate and as for the types of viscosity modifiers the reference teaches sodium carboxymethylcellulose. With respect to the amounts of the components, the reference teaches amounts that encompass or overlap that which is instantly claimed. One of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because the compositional proportions taught by the reference overlap the instantly claimed proportions and therefore are considered to establish a prima facie case of obviousness. It would have been obvious to one of ordinary skill in the art to select any portion of the disclosed ranges including the instantly claimed ranges from the ranges disclosed in the prior art reference, particularly in view of the fact that;

“The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages”, In re Peterson 65 USPQ2d 1379 (CAFC 2003).

Also, In re Geisler 43 USPQ2d 1365 (Fed. Cir. 1997); In re Woodruff, 16 USPQ2d 1934 (CCPA 1976); In re Malagari, 182 USPQ 549, 553 (CCPA 1974) and MPEP 2144.05.

Accordingly the instant claims are obvious over the reference.



***Allowable Subject Matter***

8. Claims 11, 22 and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Information Disclosure Statement***

9. JP1-21785 B2 was not considered as applicant has not provided a copy of this reference and a copy is unavailable to the examiner. JP10-217394A has been considered however it is not seen as to teach and/or fairly suggest the instant invention.

***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony J. Green whose telephone number is 571-272-1367. The examiner can normally be reached on Monday-Thursday 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Anthony J. Green/

Primary Examiner  
Art Unit 1793

ajg  
July 17, 2008